


OWNER'S MANUAL



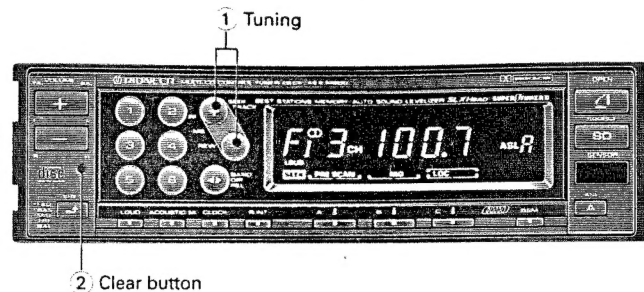
天-地-X-N-BOO

MASTEC

Features

- Multi CD Control function for full control over optional magazine type multi-play CD player.
- Built-in highly sensitive "Super Tuner III" for automatic control of stereo separation, muting, and frequency characteristics to match the strength of the FM signal.
- Versatile tuning system (preset, preset scan, seek, manual).
- For either AM or FM reception, a tuning step is switchable to the other according to the zonal frequency range.
- Logic design cassette deck for light-touch easy controls.
- Built-in Dolby B and C NR for reduced tape hiss.
- Wireless remote controller included as an accessory to keep often used controls at your fingertips.
- ASL (Automatic Sound Levelizer) for automatic control of the volume level according to the noise inside the vehicle.
- Removable front panel protects against theft.
- Acoustic memory function for memorizing two tone settings.
- Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
"DOLBY" and the double-D symbol  are trademarks of Dolby Laboratories Licensing Corporation.

Changing the Tuning Steps



Changing the Tuning Steps

The unit is shipped from the factory preset for 10 kHz steps in AM and 0.2 MHz steps in FM. The following procedure should be used for applications outside of North America, Central America and South America to change the tuning steps and frequency ranges.

1. Turn the ignition switch off.
 2. While pressing both the (+) and the (-) sides of button ①, turn the ignition switch on. It should be noted that changing the tuning steps also deletes frequencies stored in the tuning memories.
- Pressing button ② and changing the vehicle's battery set the tuning steps and frequency range settings to their initial setting.

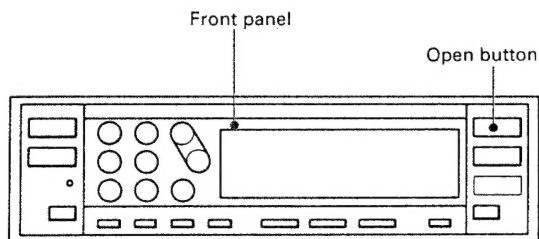
	Specification	Initial setting	New Setting
AM	Tuning steps	10 kHz steps	9 kHz steps
	Frequency range	530–1,710 kHz	531–1,602 kHz
FM	Tuning steps	0.2 MHz steps	50 kHz steps
	Frequency range	87.9–107.9 MHz	87.5–108 MHz

Using the Removable Front Panel

The front panel of this unit can be removed to prevent theft.

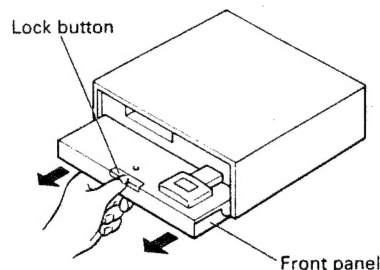
Detaching the Front Panel

1. Press the open button to open the front panel.

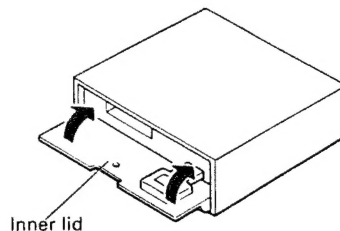


- Press the open button before turning the ignition off. After the ignition is turned off, the front panel will not open even if the open button is pressed.

2. While holding down the lock button, pull the front panel toward you.
- Take care not to put pressure on the display or drop the front panel.



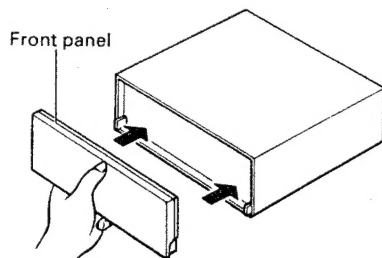
3. Close the inner lid.



- Always keep the inner lid closed while the front panel is out, otherwise dirt or dust may get into from the cassette slot, causing malfunctions.

Replacing the Front Panel

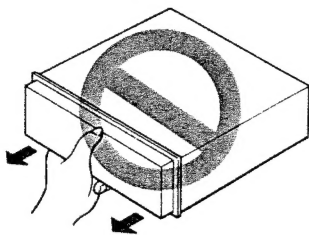
1. Make sure the inner lid is closed.
2. Push the front panel into the main body.



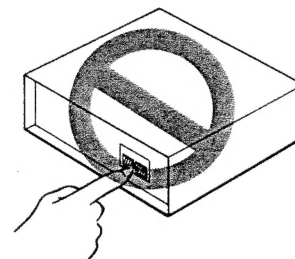
- When replacing the front panel, do not put pressure on the display or control buttons.
- If the front panel is not installed correctly, it may not be opened when the open button is pressed or no operation may occur when an operation button is pressed. In this case, push down the front panel slightly.

Precautions

- Do not force the front panel to remove it.



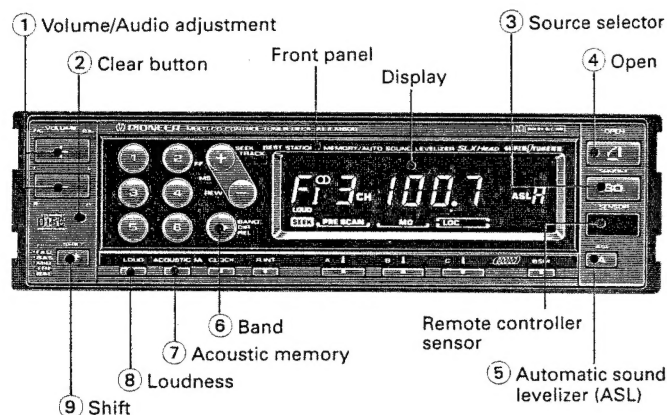
- Do not touch the terminals. It may cause poor contact.



Precautions When Handling the Front Panel

- Do not leave the front panel in any area exposed to high temperatures or direct sunlight.
- Do not drop the front panel or otherwise subject it to strong impact.
- Do not allow such volatile agents as benzene, thinner, or insecticides to come into contact with the surface of the front panel.
- Never try to disassemble the front panel.

Adjusting Volume and Tone



Using the Clear Button

Once all wiring is complete, press button ② with a thin, pointed object. Though not a normal occurrence, the microprocessor which controls the operation of this unit can be affected by electrostatic noise. This generally is indicated by such symptoms as no power being supplied when you switch the unit on, failure of buttons and controls, or an abnormal display. Should this happen, press button ② with a thin, pointed object to reset the microprocessor. Note that doing so also resets all audio controls, so you will have to make any desired settings again. This operation deletes all memory contents, such as frequencies stored in the preset memory, so you will have to make any desired settings again.

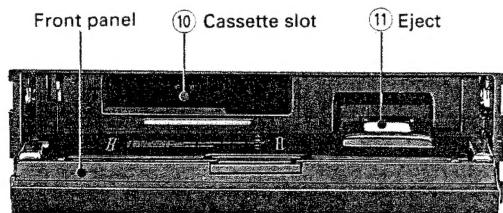
Switching Power On

Tuner

Press button ③ to switch the tuner power on. Press button ③ again to switch the power off.

Tape

Press button ④ to open the front panel, and load a cassette in through cassette slot ⑩. The cassette will play. To eject the cassette, press button ④ to open the front panel and press button ⑪.



Note:

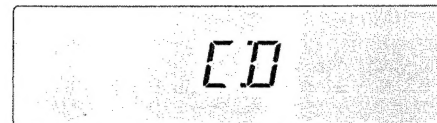
- None of the operation buttons except button ⑪ work while the front panel is open. Use the control buttons after shutting the front panel.
- During operation, the power to this unit is turned off if the engine is started or if the ignition is turned off then to ACC or ON again while the front panel is open. In this case, close the front panel to resume operation.

Source Selector

When a cassette is loaded and button ③ is pressed, the source shifts in the order tape → tuner → power off. If this unit is combined with a multi-play CD player sold separately such as CDX-M70, or if a CD player is connected to the auxiliary input (AUX), the source shifts in the order multi-play CD player → tape → tuner → AUX (CD player).

- If a CD player is connected to the auxiliary input (AUX), the power to this unit will not switch off, even if button ③ is pressed, when the CD player is operating. To switch the power off, stop the CD player.

- When the source is switched to AUX (CD player), the display indicates CD.



Adjusting Audio

Press button ① to adjust the volume. Each press of button ⑨ changes the display and the function of button ① as follows:

Volume → Fader → Bass → Middle → Treble → Balance

Adjusting Volume

Pressing the (+) side of button ① increases the volume, while the (-) side decreases it.

VOL. 15

Adjusting the Fader

This function controls the balance between the front and rear speakers of a 4-speaker system. Pressing the (+) side of button ① shifts the balance to the front speakers, while the (-) side shifts it to the rear speakers.

For 2-speaker systems, set FAD. 0.

FAD. 0

Adjusting Bass

Pressing the (+) side of button ① increases bass, while the (-) side decreases bass.

BAS. 0

Adjusting Middle

Pressing the (+) side of button ① increases middle, while the (-) side decreases middle.

M ID. 0

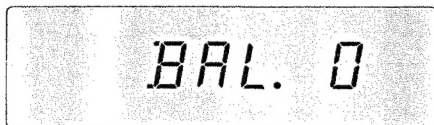
Adjusting Treble

Pressing the (+) side of button ① increases treble, while the (-) side decreases treble.

TRE. 0

Adjusting Balance

Pressing the (+) side of button ① shifts the balance to the left speaker, while the (-) side shifts it to the right speaker.

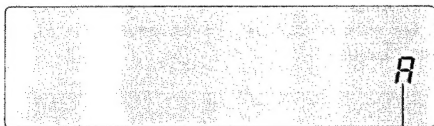


- When you're adjusting fader, bass, middle, treble, or balance settings, the indicator will stop at the center setting. About 5 seconds after adjustment has been made, the display returns to its previous state.

Acoustic memory

This unit can memorize two tone settings, A and B. Setting A could be for music; setting B, for news.

1. When button ⑦ is pressed, the acoustic position indicator changes from A to B or from B to A.



Acoustic position

2. Adjust the bass, middle, and treble levels to represent setting A. Do the same for setting B. The levels set are memorized.

ASL (Automatic Sound Levelizer)

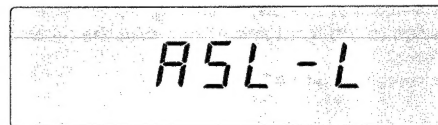
Press button ⑤ to operate ASL (automatic sound levelizer). ASL monitors the noise inside the vehicle, which changes according to the driving speed and the road conditions, and automatically increases the volume when the noise increases. (ASL is shown on the display.)

- At high volume, ASL automatically reduces the selected intensity if it will make the volume too loud.
- If ASL operates and the volume becomes too high, the sound may be distorted. In this case, reduce the volume.

ASL Intensity Selection

ASL has three different intensity modes (increases in volume according to noise). The greatest increase is obtained with ASL-H, followed by ASL-M, then ASL-L.

1. Hold down button ⑤ for at least 2 seconds. The current ASL mode will be shown on the display for about 5 seconds.



(Example: ASL-L)

2. While the display indicates an ASL mode, press either the (+) or (-) side of button ① to change the ASL mode.
- About 5 seconds after the ASL mode has been changed, the display returns to the previous indication.

Using Source Level Adjuster

You may wish to adjust volume when you have changed the source to radio, tape, or CD or when you have changed the radio band from FM to AM. You can do so on the basis of the volume of FM as follows:

1. Use the button ③ to change the source. (In case of radio, change the band to AM.)
2. Hold down the button ⑨ for about 2 seconds, and the display will show you the volume of the source.

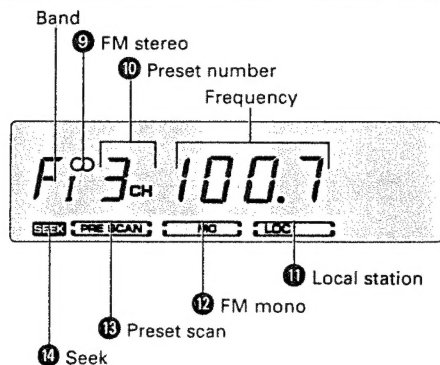
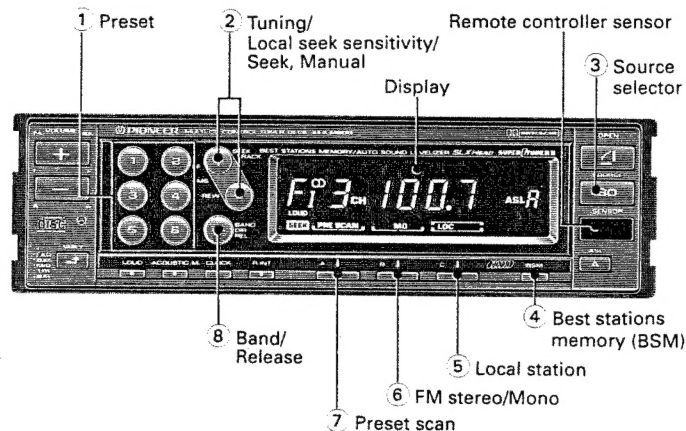


3. To increase the volume, press the (+) side of the button ①, and to decrease press the (-) side. You can adjust the volume within a span of V -4 and V 4. The display automatically returns to the previous showing when five seconds have elapsed after the adjustment.
- No adjustment can be made when an FM station is tuned in.

Using the Loudness Function

Press button ⑧ and the LOUD indicator will appear on the display. This "loudness" function enhances both the high and low ranges of sound to give even more power to output even at low volumes.

Using the Tuner



1 Press button ③ to switch the tuner power on.

2 Press button ⑧ to select a band.

$F_I \rightarrow F_{II} \rightarrow F_{III} \rightarrow A$
(FM1) (FM2) (FM3) (AM)

- When the tuning step is changed, the AM band indicator shows "M".

3 Use seek tuning to tune in a frequency.

Confirm that the SEEK indicator ⑭ is shown on the display (if not, press the (+) and (-) sides of button ② at the same time).

Press the (+) side of button ② to automatically tune in the next higher receivable frequency, and the (-) side for a lower frequency.

4 Adjust volume and tone (see page 7).

5 Assign the tuned frequency to one of the buttons in bank ① (preset memory).

Press and hold down one of the buttons in bank ① for at least two seconds. The frequency is assigned to the selected button when the preset number ⑩ stops flashing on the display. Up to 18 FM stations (6 each for FM1, FM2 and FM3) and six AM stations can be assigned to the preset memory buttons in bank ①.

6 Once a frequency is assigned to a button in bank ①, you just need to press that button to tune it in.

This also causes the number of the button pressed to appear at position ⑩ on the display.

Preset Scan Tuning

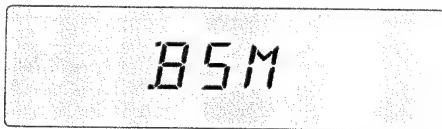
This function lets you automatically monitor the stations assigned to the preset buttons.

1. Press button ⑦. (Bar 13 appears.) Preset number 10 flashes and each station in the memory for button ① is sequentially called for 8 seconds.
2. When you hear a station that you like, press button ⑦ again to cancel preset scan tuning and remain at that station.

BSM (Best Stations Memory)

This function automatically locates stronger stations and automatically assigns their frequencies to the buttons in bank ①, from strongest to weakest. It comes in handy when trying to find local stations while driving.

1. Press button ⑧ and select a band.
2. Hold down button ④. After about two seconds, a "beep" will sound to signal that the BSM search has started. At this time, BSM will flash on the display.



3. The frequency display will return once BSM search is complete, and frequencies are assigned to buttons 1 through 6 in bank ①.

- At the end of the BSM search, the displayed frequency is that assigned to button ① of bank ①.
- If there are fewer than six strong stations in the area, some of the buttons in bank ① will not be assigned frequencies, so they will retain any frequencies assigned to them previously.
- BSM search may take as long as 30 seconds in areas where there are few strong stations.
- You can cancel BSM search by pressing button ⑧.

Manual Tuning

Use manual tuning when stations are too weak to be picked up by seek tuning.

1. Press both (+) and (-) sides of button ② at the same time to clear SEEK 14.
 2. Each press of the (+) side of button ② increases the frequency in 0.2 MHz steps in the FM band, 10 kHz in the AM band. Pressing the (-) side of button ② decreases the frequency. Holding down either side of button ② changes the frequency at high speed.
- FM frequencies are tuned in 50 kHz steps and AM frequencies in 9 kHz steps after the tuning steps are changed.

Switching between FM Stereo and Mono

Generally, it is best to allow the "Super Tuner III" function to automatically set the optimum listening conditions. When there is a large amount of noise, you can press button ⑥ for clearer, mono reception (Bar 12 appears).

Adjusting Seek Sensitivity

The seek tuning function of this tuner lets you select between a local setting for reception of strong stations only, and a DX (distant) setting for reception of weaker stations. The local setting also has four seek tuning sensitivity levels for FM and two levels for AM to match local conditions.

Changing the Local Seek Sensitivity

1. Use button ⑧ to select a band.
2. Hold down the button ⑤ for more than two seconds, and the display will show you the current local seek sensitivity for about five seconds.



(Example: LOC-2)

3. While the local seek sensitivity remains on the display, press the (+) side of button ② to increase the sensitivity level, and the (-) side to decrease the level as shown below.

FM : LOC-1 ⇌ LOC-2 ⇌ LOC-3 ⇌ LOC-4

AM : LOC-1 ⇌ LOC-2

The LOC-4 setting allows reception of only the strongest stations, while lower settings let you receive progressively weaker stations.

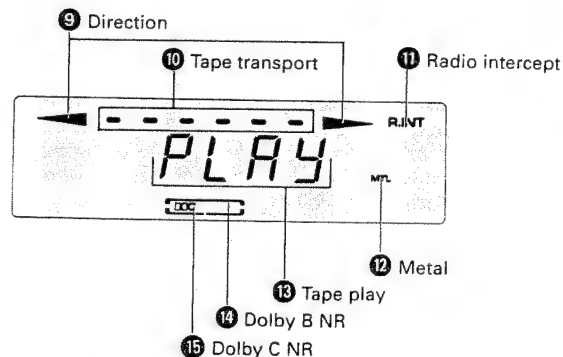
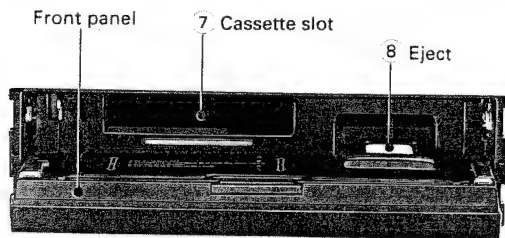
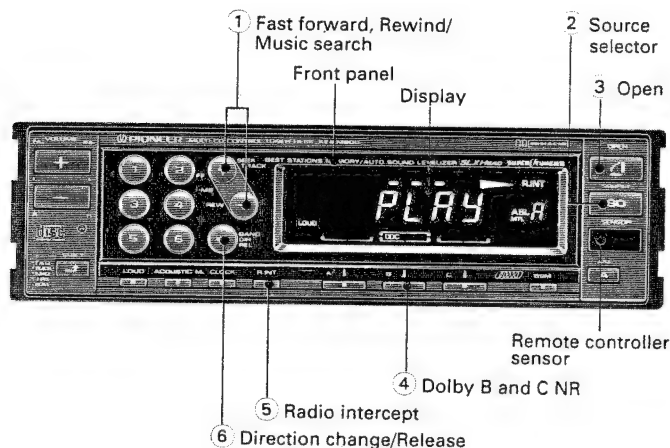
- The display of local seek sensitivity returns to the frequency when about five seconds have elapsed after the change of sensitivity.

Switching between Local and DX

Press button ⑤ to switch between Local and DX (distant) seek tuning.

When bar ⑪ is shown on the display, seek tuning is performed with the local seek sensitivity. Otherwise, seek tuning is performed with the DX seek sensitivity.

Using the Tape Deck



- 1 Press button ③ to open the front panel.
- 2 Load a cassette in through the cassette slot ⑦. The cassette will play.
Tape play ⑬, tape transport ⑩, and direction ⑨ appear.
- 3 Close the front panel and adjust volume and tone (see page 7).
- 4 To stop play halfway, press button ② to switch the function off.
To restart play, press button ② some times until PLAY ⑬ appears on the display. The tape begins playing at the position where it stopped.

5 To eject the cassette, press button **3** to open the front panel and press button **8**.

Note:

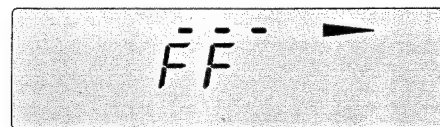
- The power is not switched on even if a cassette is loaded in through cassette slot **7**, if the engine is started or if the ignition is turned off then to ACC or ON again while the front panel is open. In this case, close the front panel to switch the power on and start play.
- Power is automatically turned off when the cassette tape has not been set within a few seconds. When this happens, remove the tape by pressing the button **8** because of a possible trouble with the tape.
- A loose or warped label on a cassette tape may interfere with the eject mechanism of the unit or cause the cassette to become jammed in the unit. Avoid using such tapes or remove such labels from the cassette before attempting use.

Changing Program

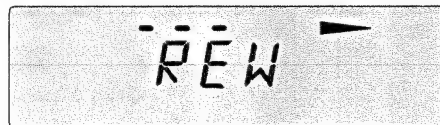
Press the button **6** to change the side of tape from A to B or vice versa.

Using Fast Forward and Rewind

1. To fast-forward tape, press the (+) side of the button **1**.



To rewind tape, press the (-) side.



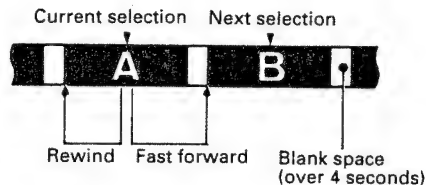
2. To release the fast forward or rewind function, press the button **6**.

Using Radio Intercept

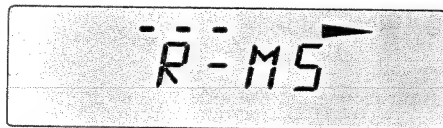
Use radio intercept to hear radio while fast forward or rewinding.

1. Press the button **5** (R.INT **1** appears) before fast forward or rewinding, and you will hear radio.
2. To release the radio intercept function, press the button **5** again.
- The radio intercept does not function when the music search is in operation.

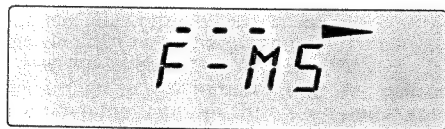
Using Music Search



1. To repeat the current selection (A), press the (-) side of the button ① two consecutive times.



To hear the following piece of music (B) rather than continue the current selection, press the (+) side of the button ① two consecutive times. Pressing the button ① three consecutive times makes the normal sequence of playing resume.



2. To release the music search function, press the button ⑥.

The following errors will cause the music search function to operate improperly, even though the unit is not malfunctioning.

- Unrecorded blank portion between selections is less than 4 seconds → the blank portion cannot be detected by the unit.
- Pauses in recorded conversations are longer than 4 seconds → the unit reads these as blanks between selections.
- Portions are recorded at very low volume for more than 4 seconds → the unit reads these as blanks between selections.

Dolby B and C NR

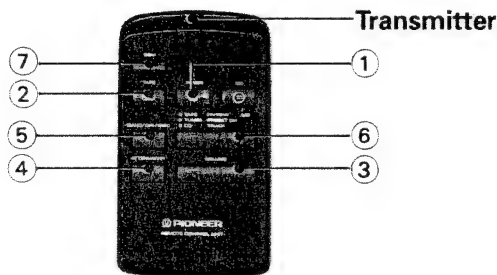
Press button ④ to listen to a cassette recorded using the Dolby NR system. Each press of button ④ shifts the Dolby NR mode as follows:

Dolby B NR (Bar ⑭ appears) → Dolby C NR (C ⑮ appears) → Dolby NR off.

Auto Tape Selector

When a cassette tape is inserted, the automatic tape selector determines the tape type, and switches between 70 μ s and 120 μ s equalization. When it is a metal or chrome tape, MTL ⑫ comes on. When it is a normal tape, nothing comes on.

Using Remote Control



① Tuner

Changes to radio.

② Tape

Changes to tape.

③ Volume

Press the (+) side to increase volume and the (-) side to decrease volume.

④ Attenuator

Press to reduce the volume to 1/10 of its current setting (ATT flashes).

Pressing again returns the volume to its original level.

- This function is available using the remote controller unit only.

ATT.15

Operating Radio

⑤ Band

Band changes.

⑥ Preset Channel

Press to tune the frequencies assigned to the preset button memory. Pressing the (+) side tunes in the next high preset button number while (-) tunes in the next lower preset button number. The preset number changes at high speed when you hold either side of this button down.

⑦ Best Stations Memory

Hold on this button for about two seconds, and you will hear a beep and see best stations memory start.

Operating Tape

⑤ Program

Press this button to change the side of tape from A to B or vice versa.

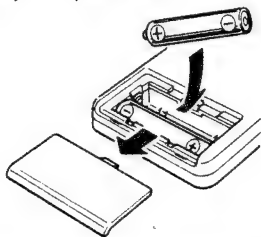
⑥ Fast Forward/Rewind

Press the (+) side for fast forward and the (-) to rewind the tape. Press this button twice to perform the music search operation, and a third time to return to normal playback.

Preparing to Use the Remote Controller Unit

Loading Batteries

1. Remove the battery compartment cover from the remote controller unit.
2. Load the two UM-4, AAA, or R03 batteries that come with the unit into the remote controller unit, ensuring that their polarity (+/-) is correct.
3. Replace the battery compartment cover.

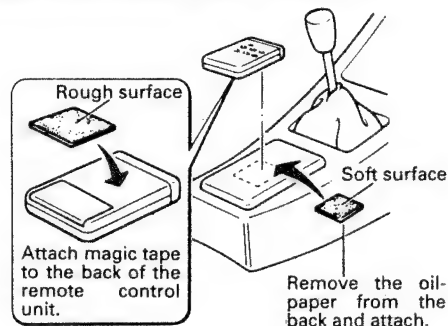


Precautions When Loading Batteries

Note the following precautions when loading batteries into the remote controller unit to avoid damage due to battery fluid leakage.

- Always check carefully that you are loading batteries with their \oplus and \ominus poles facing in the proper directions.
- Never mix old and new batteries. Always replace batteries with two new ones.
- Some batteries may appear to be identical but have different voltage ratings. Never mix battery types.
- Some batteries can be recharged and some cannot. Be sure to carefully read the label for the batteries you use.
- To avoid damage to the remote controller caused by battery leakage, remove the batteries from the remote controller if you do not plan to use it for more than one month. If you find that fluid has leaked, thoroughly wipe out the battery compartment and load a set of new batteries.

Installing the Remote Controller Unit



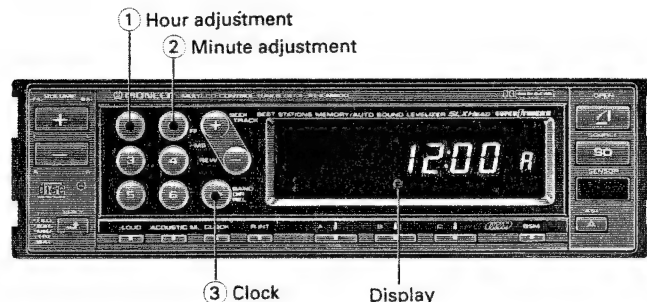
Affix a strip of Velcro tape to the back of the remote control unit. Remove the oilpaper on the back and affix into place.

- Thoroughly wipe off the surface before affixing the Velcro tape.

Precautions

- Keep the remote controller unit in an area not exposed to long periods of direct sunlight.
- The remote controller unit may not operate properly if the transmitter of the remote controller unit is pointed towards the floor or the seat of the vehicle.
- Since the transmitter employs an infrared system, it may not operate properly while car stereo unit is exposed to direct sunlight. In such a case, block the sunlight from the sensor and then perform the desired operation.
- If the remote controller fails to operate unless it is brought close to the unit, it may indicate that battery power is low. Replace the batteries in the remote controller.

Using the Clock Display



Displaying the Time

The clock is displayed while button ③ is depressed. Press button ③ again to turn off the clock display.

Adjusting the Time

Adjusting the Hours

While holding down button ③, press button ① to adjust the hour setting of the clock. Each press of button ① advances the hour setting by one hour, and holding it down advances the setting at high speed.


Adjusting the Minutes

While holding down button ③, press button ② to adjust the minute setting of the clock. Each press of button ② advances the minute setting by one minute, and holding it down advances the setting at high speed.

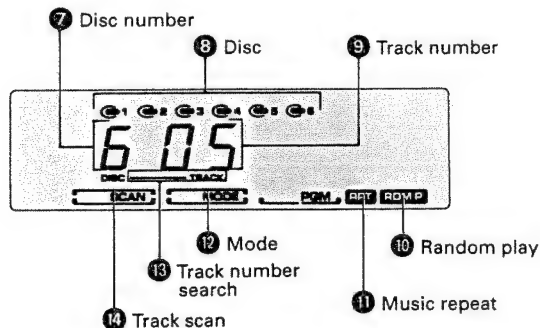
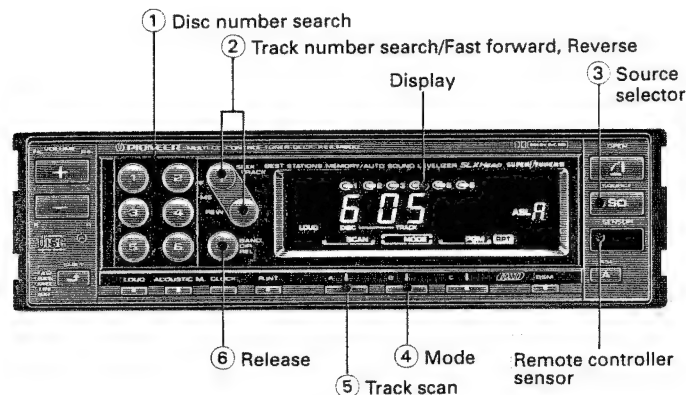
- The clock display can also be turned off by pressing any other button (audio control, tape control, etc.).

Precautions When Using the Multi-Play CD Control

- This model can be used as controller when an optionally available multi-play CD player such as CDX-M70 is included in the system.
- See pages 19 through 25 for details on operation procedures.
- The Owner's Manual for the multi-play CD player does not contain an explanation of the CD controls for this unit. Read this Owner's Manual for details on proper operation and keep it handy for later reference.
- Immediately after the multi-play CD player is connected to the system, it may not operate properly (i.e. the system will not enter the multi-play CD player mode when you press the source selector button). In this case, press the clear button of the main unit and the clear button of the multi-play CD player, and attempt operation again.
- An Err (error) indicator is shown on the display and operation of the system becomes impossible when there are no discs in the magazine or when the discs are loaded into the magazine with their labels facing upwards. Whenever this message appears, remove the disc magazine and check the discs.
- The indicator HHHH flashes on the display and playback is automatically cut when the temperature around the multi-play CD player becomes too high. This protects the laser mechanism from serious damage. Listen to the radio until the temperature returns to normal. (This functions only when your unit is used with a multi-play CD player CDX-M100.)

The Magazine Type Multi-Play CD players with  mark and the Magazines with the same mark are compatible for 5-inch (12 cm) discs.

Playing Compact Discs



1 Press button 3 to change the display to the multi-play CD player mode and to begin disc play.

2 Use the disc number search function to select a disc.
Select the desired disc by pressing one of the buttons in bank 1. The number of the disc selected appears at position 7 on the display.

- Display 8 indicates whether a disc is loaded in the magazine or not.
- If the number at position 7 on the display does not change when you press a button in bank 1, it means that there is no disc loaded in that tray.

3 Use track number search to select a track.

Confirm that —TRACK is shown at position 13 on the display. If not, press the (+) and (–) sides of button 2 at the same time. Press the (+) side of button 2 to increase the number at position 9, or the (–) side to decrease the number. Holding either side of button 2 down changes the track number at high speed.

4 Adjust volume and tone (see page 7).

5 To stop disc play, press button 3.

To start disc play again, press button 3 until the display indicates multi-play CD control. Play begins roughly at the position where it stopped.

- If you stopped operating a multi-play CD player CDX-M100 in the middle of music and then restarted, the player resumes playing from the beginning of the track at which you stopped.

Note:

- After you press a button in bank ①, it may take some time before play begins due to the time necessary to load and set the disc in the mechanism.
- The display counts down the number of seconds between tracks if the spacing is rather large (- 02, - 01).

Using Track Scan

This function lets you scan through the tracks on a disc by playing only the first ten seconds of each track.

1. While a disc is playing, press button ⑤ so that a bar appears at position 14 on the display.
 2. To cancel track scan and continue play at the current track, press button ⑤ or button ⑥.
- After track scan plays through all of the tracks, disc play resumes from the beginning of the track from which track scan was started.

Using Music Repeat and Random Play

Press button ④ to select the music repeat or the random play mode. (Bar 12 appears.) Each press of button ④ shifts the mode as follows:

Repeat (RPT 11 appears) → random play (RDM.P 10 appears) → release (disappear).

Music Repeat

This function lets you listen to a track as many times as you wish.

1. Press button ④ when a piece you want repeated is being played. RPT 11 appears. The piece will now be repeated as many times as you wish.
 2. To cancel music repeat, press button ⑥.
- When music repeat is no operational, the compact discs contained in the magazine will play sequentially from beginning to end, and then start from disc 1 again.

Random Play

The built-in microcomputer randomly selects pieces from among all those on the discs in the magazine.

1. Press button ④; RDM.P ⑩ appears. After the current piece ends, subsequent pieces play randomly.
2. To cancel random play, press button ⑥.
 - Since tracks are selected at random, it is possible that the same track may be played twice in succession.
 - When a multi-play CD player CDX-M100 is used, random selection is made from a disc being played.

Using Fast Forward and Reverse

1. Press simultaneously both (+) and (-) sides of the button ② (←TRACK ⑮ goes out). At this time the display will show the amount of elapsed disc play time.



2. Press the (+) side of button ② for fast forward, and the (-) side for reverse.
 - Sound is output during fast forward and reverse operations.

Using Program Play



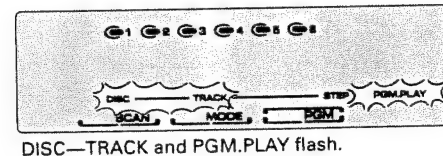
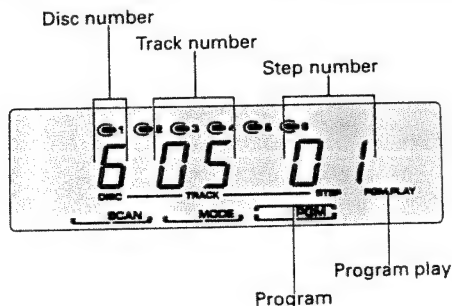
This function lets you program the play sequence of all of the tracks contained on the compact discs loaded in the magazine.

- Up to 32 selections can be programmed for a single magazine.
- Up to 16 different magazines (max. 32 selections per magazine) can be programmed individually. If you program more than 16 magazines, old programs are automatically replaced by new ones.
- Automatic Magazine Program Selection (AMPS) retrieves the right program from the memory automatically, as soon as a pre-programmed magazine is loaded. Preprogrammed magazines are identified using the CD in the tray 1 of the magazine. Therefore be sure that tray 1 contains a disc.
- The procedures for programming and changes must be performed within ten seconds after you press a button (while DISC—TRACK and PGM.PLAY are flashing on the display). If you take longer than 10 seconds, you must start the procedure from the beginning again.

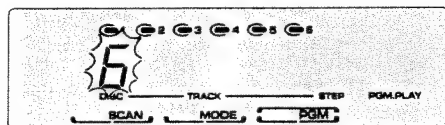
Programming and Playback

Example: Program the first step for play of Track 5 on disc 6.

1. While a disc is playing, press button ③.

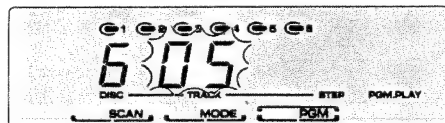


2. Press button **6** in bank **①**.

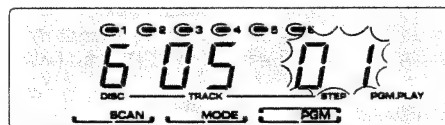


Indicates Disc 6.

3. Use button **②** (+/-) to set the track number to 05.

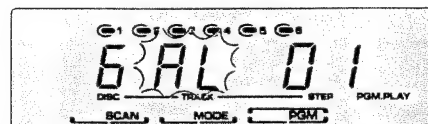


4. Press button **③** to complete one programming step.



Indicates Step 1.

- Procedures 2, 3 and 4 above can be repeated until a maximum of 32 steps are programmed.
- Pressing button **③** after selecting a disc in procedure 2 above programs all of the tracks contained on the selected disc for playback.



AL indicates all tracks.

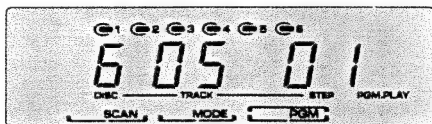
5. Once programming is complete, press button **④** to begin play in the sequence contained in memory. (DISC—TRACK and PGM.PLAY stop flashing.)
 6. To cancel program play, press button **④** again. To resume program play, press button **③** followed by button **④** within ten seconds.
- Program play returns to the first step in the programmed sequence when it reaches the end of the program.
 - Pressing button **②** during programmed play makes it possible to search for a specific step number from among the programmed selections.

Modifying a program

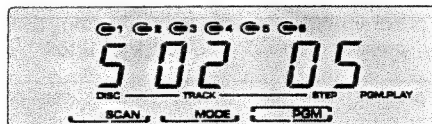
Use the following procedure to make changes in a program that has already been stored in memory.

Example: Change the Step 5 to Track 7 on disc 3.

1. While a disc is playing, press button ③, and Step 1 of the program will appear on the display.

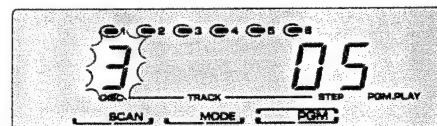


2. Press button ③ until Step 5 is displayed.

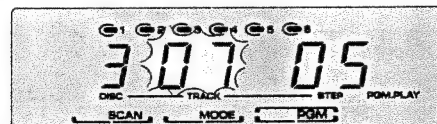


Step 5 display.

3. Press button ③ in bank ①.



4. Use button ② (+/-) to set the track number to 07.



5. Press button ③. Now Step 5 contains the newly programmed data, and the display shows Step 6.
 - Procedures 2, 3, 4 and 5 above can be repeated to modify multiple steps.
6. Finally press button ④. The program is changed and program play starts. (DISC—TRACK and PGM.PLAY stop flashing.)

Playing Disc by Remote Control

Deleting a Program

Use the following sequence to delete the entire program for a magazine.

1. While a disc is playing, hold down button ③ for at least two seconds. When CLR appears on the display, the entire program has been deleted.



2. When you release button ③ after deleting a program, DISC—TRACK and PGM.PLAY will be flashing on the display. You will be able to enter a new program by beginning input within ten seconds. Otherwise, a normal display appears.
- The track playing when you delete the program continues to play after the deletion, followed by other tracks in their normal (unprogrammed) sequence.
- When playing or modifying a program (when DISC—TRACK and PGM.PLAY flash), program deletion is impossible.



① CD

Changes to CD playing.

② Disc Number Search

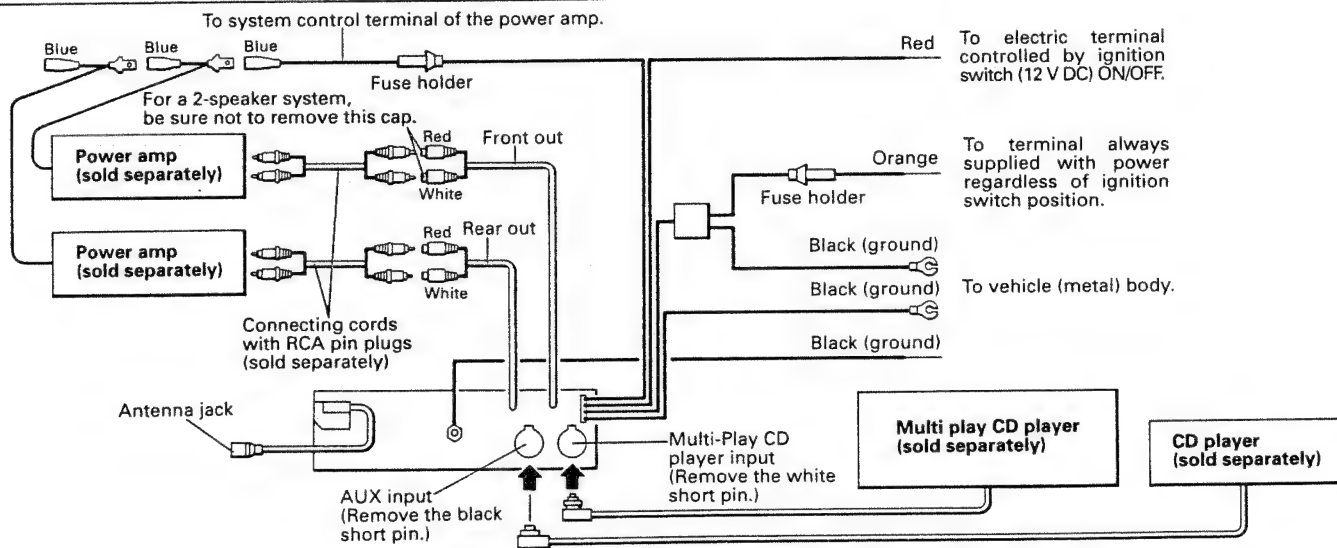
Used to specify the number of a disc loaded in the magazine. Each press of this button sequentially advances the number.

③ Track Number Search

Press to search for a selection (track number) on the current disc. Press the (+) side to increase the track number on the display, and the (-) side to reduce the track number. Holding down either side of this button changes the track number at high speed.

Connecting the Units

- Before making final connections, make temporary connections then operate the unit to check for any connecting cord problems.
- Refer to the owner's manual for details on connecting the various cords of the power amp and other units then make connections correctly.
- Be sure to connect the memory power supply lead (orange) to a terminal that is always supplied with power regardless of the vehicle's ignition switch position. If this connection is made incorrectly or is forgotten, the unit will not work at all.
- Don't pass that orange lead through a hole into the engine compartment to connect to the battery. This will damage the lead insulation and cause a very dangerous short.
- When the multi-play CD player input or the AUX input is not in use, leave the short pin on it.
- For 2-speaker systems, wire the rear output cord to the main amp.



Installation

DIN Front/Rear-mount:

This unit can be properly installed either from "Front" (conventional DIN Front-mount) or "Rear" (DIN Rear-mount installation, utilizing thread screw holes at the sides of unit chassis). For details, refer to the following illustrated installation methods.

Note:

- Use only the parts included with the unit to ensure proper installation. The use of unauthorized parts can cause malfunctions.
- Consult with your nearest dealer if installation requires the drilling of holes or other modifications of the vehicle.
- Do not use the front panel as a way of gripping the unit during installation and wiring. The front panel may come away and the unit may drop on the floor.
- If installation angle exceeds 30° from horizontal, the unit might not give its optimum performance. (Fig. 1)

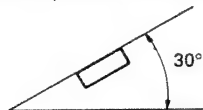


Fig. 1

Frame Installation (DIN Front-mount)

Fix the frame to the unit. (Fig. 2)

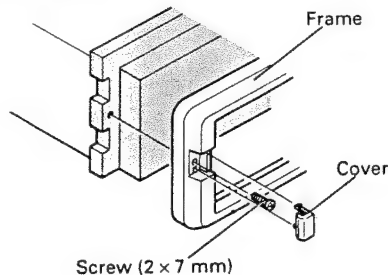


Fig. 2

Holder Installation (DIN Front-mount)

Install the holder in the dashboard. After inserting the holder into the dashboard, select the appropriate tabs according to the thickness of the dashboard material and bend them inwards to secure the holder in place. (Fig. 3)

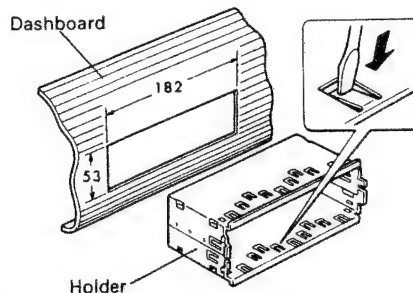


Fig. 3

Installation With the Rubber Bush (DIN Front-mount)

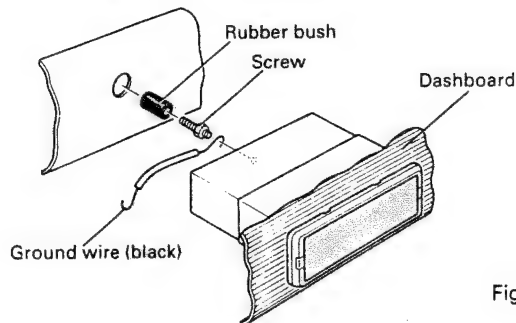


Fig. 4

Installation Without the Rubber Bush (DIN Front-mount)

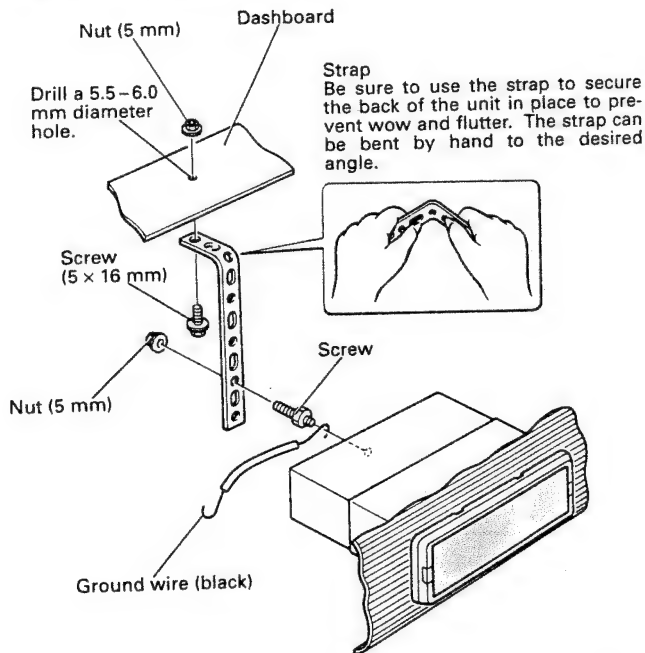


Fig. 5

Removing the Unit (DIN Front-mount)

1. Remove the frame.
Remove the covers on the both sides of the frame and remove the screws (2 × 7 mm). (Fig. 2) Insert the release pins into the holes in the bottom of the frame and pull out to remove the frame. (Fig. 6)

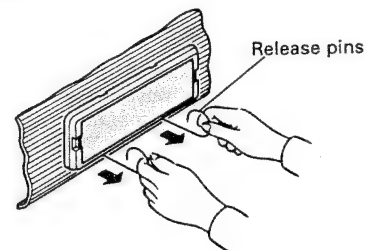


Fig. 6

2. Pull out the unit.
Position the accessory levers with the tabs lower. Insert the levers into the slots on both sides of the unit until they lock into place. Pulling off the levers makes it possible to remove the unit from the dashboard. (Fig. 7)

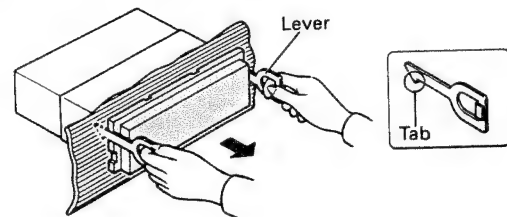


Fig. 7

Installation using the screw holes on the sides of the unit (DIN Rear-mount)

1. Remove the stopper

Remove the screw (3 × 8 mm) and remove the stoppers from both sides (Fig. 8).

2. Installing the ground wire

Install the supplied ground wire onto the back of the unit using a screw (4 × 8 mm), and connect the other end to a metal fixture of the vehicle (Fig. 9).

3. Fastening the unit to the factory radio mounting bracket

For the screw holes marked (A) in Fig. 10, use 5 × 8 mm screws, obtainable from your local hardware store. (Fig. 11)

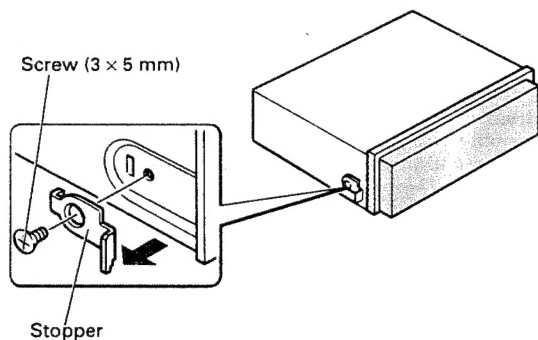


Fig. 8

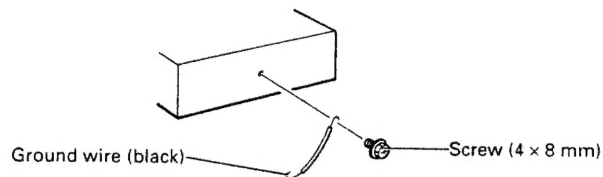


Fig. 9

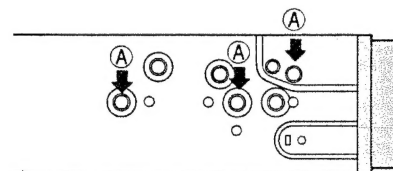


Fig. 10

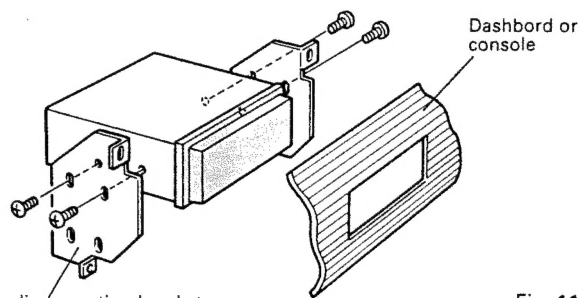


Fig. 11

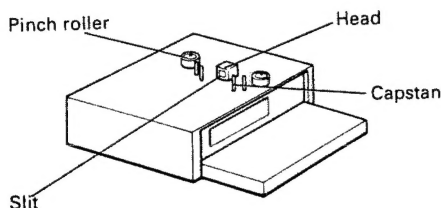
Head Cleaning

The playback head performs an important role in the reproduction of recordings. If the head should become dirty, tone quality suffers and skipping will occur. Therefore, the head should be cleaned periodically (once or twice a month).

If a cotton swab is used, dip the swab into absolute alcohol or head cleaning fluid and use it to scrub the slit in the tape head.

Head Position

The head is located on the right side of the tape slot, approximately halfway between the front of the unit and the back.



Note:

- Don't use metal or a magnet on the head. Never use tweezers or pliers wrapped with cotton or gauze. This can scratch the head.
- When using a cleaning tape, play it once on one side for normal cleaning. Too much use of the cleaning tape will increase head wear. Be sure to read the cleaning tape instructions before use.

Precautions

- To assure proper operation of the unit, keep the vehicle interior temperature within a normal range using the vehicle's air conditioner or heater.
- When replacing fuses, be sure to use only fuses of the capacity prescribed on the fuse holder.
- If the tape has been unevenly wound, the force required for tape transport is too high which will cause play to switch automatically to the other side of the tape (the unit senses that the tape has reached the end). When this happens, use fast forward to rewind the tape uniformly before attempting playback.
- Don't use tapes that are longer than C-90 (90 minutes). C-120 (120 minutes) tape is very thin and can stretch and cause poor operation.
- Don't leave tapes in direct sunlight because they can get too hot and deform.
- Don't put tapes near magnets. Magnets can erase parts of tapes.
- Be sure to store tapes properly when not in use. Rewind them evenly and put them into a cassette case.
- Do not add any oil to the rotating parts nor disassemble the set if it does not perform satisfactorily.
- Frequencies and times stored in memory can be lost when the vehicle's battery is replaced. If this should occur, reprogram the preset memory.
- When driving your vehicle, be sure to keep the volume of the unit set low enough to allow you to hear sounds coming from outside.

In case of trouble

When the unit does not operate properly, contact your dealer or the nearest authorized PIONEER Service Station.

Specifications

General

Power source	14.4 V DC (10.8–15.6 V allowable)
Grounding system	Negative type
Dimensions(chassis)	178 (W) × 50 (H) × 155 (D) mm
(nose)	170 (W) × 46 (H) × 10 (D) mm
Weight	1.7 kg
Tone controls (bass)	±10 dB (100 Hz)
(middle)	±10 dB (1 kHz)
(treble)	±10 dB (10 kHz)
Loudness contour	+12 dB (100 Hz), +7 dB (10 kHz)
	(volume: -30 dB)
Preout output level	500 mV
Output impedance	1 kΩ

Tape player

Tape	Compact cassette tape (C-30–C-90)
Tape speed	4.8 cm/sec.
Fast forward/rewind time	Approx. 100 sec. for C-60
Wow & flutter	0.08% (WRMS)
Frequency response	Metal: 25–22,000 Hz (±3 dB)
Stereo separation	45 dB
Signal-to-noise ratio	
	Metal: Dolby C NR IN: 73 dB (IEC-A network)
	Dolby B NR IN: 67 dB (IEC-A network)
	Dolby NR OUT: 61 dB (IEC-A network)

FM tuner

Frequency range	87.9–107.9 MHz (200 kHz)
	87.5–108 MHz (50 kHz)
Usable sensitivity	11 dBf (1.0 μV/75 Ω, mono)
50 dB quieting sensitivity	16 dBf (1.7 μV/75 Ω, mono)
Signal-to-noise ratio	70 dB (IEC-A network)
Distortion	0.3% (at 65 dBf, 1 kHz, stereo)
Frequency response	25–15,000 Hz (±3 dB)
Stereo separation	40 dB (at 65 dBf, 1 kHz)

AM-Tuner

Frequency range	530–1,710 kHz (10 kHz)
	531–1,602 kHz (9 kHz)
Usable sensitivity	18 μV (25 dB) (S/N: 20 dB)
Selectivity	50 dB (± 10 kHz)
	50 dB (± 9 kHz)

Note:

Specifications and the design are subject to possible modification without notice due to improvements.

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